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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,478	10/08/2003	Thomas J. Schall	019934-001620US	7764
20350	7590	07/17/2006	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			MOSHER, MARY	
			ART UNIT	PAPER NUMBER
			1648	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/681,478	Applicant(s) SCHALL ET AL.	
	Examiner Mary E. Mosher, Ph.D.	Art Unit 1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/26/04, 10/8/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/26/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 33 recites "a disabled viral dissemination gene." The specification defines "dissemination" on page 10 as any detectable increase in viral titer or amount at sites other than the primary infection site. However, on pages 13-14, the specification discusses "dissemination genes" more narrowly as encoding a chemokine element or an immune-modulation gene. The broader definition would encompass disabling any essential viral gene (e.g. as taught or suggested in Inglis et al US 5665362, IDS A4), while the narrower definition would not. Since the intended scope of the claim is unclear, the claim is rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 31 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Manning et al (Journal of Virological Methods 73:31-39, 1998; C49 in the IDS). Manning teaches a recombinant cytomegalovirus encoding a vesicular stomatitis virus G protein. This is inherently an immunogenic polypeptide, from a veterinary pathogen. Therefore the reference virus meets each and every limitation of these claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 31, 32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mocarski et al EP 0277773 (B1 in the IDS). The reference teaches attenuated recombinant CMV comprising a heterologous nucleotide sequence. The reference also explicitly suggests inserting DNA encoding immunogenic proteins of pathogens, see column 3, lines 37-64. It would have been within the ordinary skill of the art to carry out the explicit suggestion of the reference, with reasonable expectation of success. The invention as a whole is therefore prima facie obvious, absent unexpected results.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mocarski et al as applied to claims 31, 32, and 34 above, and further in view of Inglis et al US 5665362. Claim 33 differs from the other claims in requiring a disabled "viral dissemination gene." Inglis teaches herpesviruses which are unable to disseminate because of a disabling mutation in a gene essential for production of infectious virus. Inglis explicitly suggests HCMV, see column 3, lines 41-47. Inglis teaches that these viruses combine the safety of a killed vaccine with the extra immunological response induced by the in vivo production of viral protein by the attenuated vaccine. It would have been within the ordinary skill of the art to further modify the recombinant CMV of Mocarski by the procedures taught for the related HSV in Inglis, for the purpose of increasing the safety of the vaccine. The invention as a whole is therefore prima facie obvious, absent unexpected results.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mocarski et al as applied to claims 31, 32, and 34 above, and further in view of Jones et al US 5843458 (IDS A10). Claim 33 also differs from Mocarski in requiring a disabled viral immune-modulatory gene. Jones teaches a recombinant CMV with a disabled US2 gene. Jones teaches that this CMV "will elicit a better immune response," see column 2, lines 14-19. It would have been within the ordinary skill of the art to further modify the recombinant CMV of Mocarski by deletion of US2, for the purpose of obtaining the superior immunogen as suggested by Jones. The invention as a whole is therefore prima facie obvious, absent unexpected results.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary E. Mosher, Ph.D. whose telephone number is 571-272-0906. The examiner can normally be reached on varying dates and times; please leave a message..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/10/06


MARY E. MOSHER, PH.D.
PRIMARY EXAMINER